

MATERIAL SAFETY DATA SHEET

Water Hardness Buffer Odorless

SECTION 1 . Product and Company Identification

Product Name and Synonym: Water Hardness Buffer Odorless

Product Code: 9771

Material Uses:

Manufacturer: Science Stuff
1104 Newport Ave

Austin, TX 78753

(512) 837-6020

Entry Date : 7/2/2013

Print Date: 7/2/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	3			
Flammability:	0			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA=Not Applicable		NE=Not Established		

SECTION 2 HAZARD IDENTIFICATION

Causes severe irritation and burns. Harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	2-Aminoethanol Monoethanolamine	CAS# 141-43-5	30%	V/V	3 ppm (6 mg/m ³) OSHA TWA
<input type="checkbox"/>	Ethylenediaminetetra- acetic acid	CAS# 29932- 54-5	0.5%	W/V	None Established
<input checked="" type="checkbox"/>	Hydrochloric Acid	CAS# 7647-01- 0	5.5%	V/V	OSHA PEL (C) 5 ppm, (C) 7 mg/m ³
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18- 5	Balance	V/V	None Established

SECTION 4 FIRST AID MEASURES

Causes severe irritation and burns. Harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

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SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards: None
Fire Fighting Procedure: Use any means suitable for extinguishing surrounding fire. Use water spray cool fire exposed containers.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

SECTION 7 HANDLING AND STORAGE

Wash thoroughly after handling. Remove contaminated clothes and wash before reuse. Use with adequate ventilation.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: None required
Ventilation
Local Exhaust
Mechanical
Protective Gloves: NIOSH Approved Gloves
Eye Protection: Splash Goggles
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	Information not available	Percent Volatile by Volume:	Information not available
Boiling Point:	Information not available	Evaporation Rate	Information of available
Vapor Pressure:	Information not available	Evaporation Standard	
Vapor Density:	Information not available	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	Colorless to pale yellow/amine smell	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Information not available		
Specific Gravity:	Information not available		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable

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Conditions to Avoid:	Avoid contact with incompatible materials.
Materials to Avoid:	Aluminum, Oxidizing agents
Hazardous Decomposition Products:	CO, CO ₂ , nitrogen oxides, hydrogen, chlorine, HCl
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Hydrochloric Acid
LD50 900 mg/kg Oral Rabbit
LC50 1108 ppm Inhalation Vapor Mouse

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

2-Aminoethanol:

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 700 mg/kg [Mouse]. Acute dermal toxicity (LD50): 1000 mg/kg [Rabbit].

Chronic Effects on Humans: May cause damage to the following organs: kidneys, lungs, liver, central nervous system (CNS).

Other Toxic Effects on Humans:

Very hazardous in case of ingestion, . Hazardous in case of skin contact (irritant, permeator), of inhalation (lung irritant).

Slightly hazardous in case of skin contact (corrosive), of eye contact (corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Causes moderate skin irritation and possible burns. It can be absorbed through the

skin. It may be harmful if absorbed through the skin. Eyes: Causes severe eye irritation and possible eye burns. Inhalation:

Causes respiratory tract irritation. May cause shortness of breath and an asthma-like condition. It may also affect behavior/

central nervous system (nausea, headache, weakness, dizziness, giddiness, sleepiness, loss of coordination and judgement)

Ingestion: May be harmful if swallowed. Causes gastrointestinal tract irritation with nausea and vomiting

SECTION 12 Ecological Information

Toxicity data- United States- Product/ ingredient name:

Hydrochloric Acid
LD50 900 mg/kg Oral Rabbit
LC50 1108 ppm Inhalation Vapor Mouse

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

2-Aminoethanol:

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

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Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: UN1760, Corrosive Liquid, n.o.s.
(Hydrochloric Acid), 8, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:
Target organ effects
Corrosive material
Highly Toxic material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: Hydrochloric Acid
SARA 302/304 emergency planning and notifications: Hydrochloric Acid
SARA 302/304/311/312 hazardous chemicals: Hydrochloric Acid
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Hydrochloric Acid
Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Hydrochloric Acid
Clean Air Act (CAA) 112 accidental release prevention: No products were found
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : listed
(essential Chemicals)

SARA 313
Form R – Reporting Requirements: Hydrochloric Acid
CAS number : 7647-01-0 Concentration : 100

Supplier notification : Hydrochloric Acid
CAS number : 7647-01-0 Concentration : 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Massachusetts Substance : This material is listed.
New Jersey Hazardous Substances : This material is listed.
New York Acutely Hazardous Substances : This material is listed.
Pennsylvania RTK Hazardous Substances : This material is listed.
Canada
WHMIS (Canada) :
Class D-1A: Material causing immediate and serious toxic effects (Very toxic)
Class E: Corrosive material

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Canadian lists :

CEPA Toxic Substance: This material is not listed.

Canadian ARET: This material is not listed.

Canadian NPRI: This material is listed.

Alberta Designated Substances: This material is not listed.

Ontario Designated Substances: This material is not listed.

Quebec Designated Substances: This material is not listed.

CEPA DSL/ CEPA NDSL : CEPA DSL:

This material is listed or exempted.

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Federal and State Regulations:

Connecticut hazardous material survey.: Ethanolamine Illinois toxic substances disclosure to employee act: Ethanolamine

Rhode Island RTK hazardous substances: Ethanolamine Pennsylvania RTK: Ethanolamine

Minnesota: Ethanolamine

Massachusetts RTK: Ethanolamine Massachusetts spill list: Ethanolamine New Jersey:

Ethanolamine TSCA 8(b) inventory:

Ethanolamine

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the

European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):

CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).

CLASS E: Corrosive liquid.

DSCL (EEC):

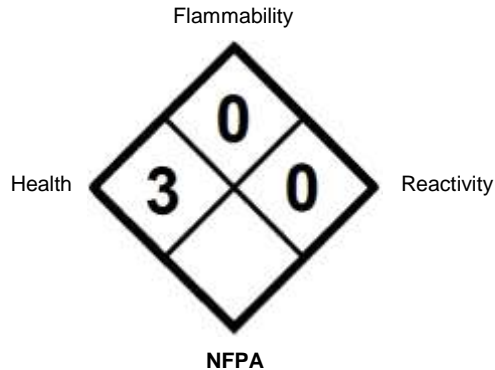
R20- Harmful by inhalation. R36/37/38- Irritating to eyes, respiratory system and skin. S26- In case of contact with eyes,

rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of

water. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S46- If swallowed, seek medical advice

immediately and show this container or label.

SECTION 16 Additional Information



Revisions

10/11/2012	0.1	Change ingredient from, EDTA, Magnesium, to Ethylenediaminetetraacetic acid. Revised to 16 sections also. LS
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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.